IN THE CLAIMS:

Please substitute the following claims for the same-numbered claims in the application:

1.   (Currently Amended) A computer-implemented method of mining association rules over transactions from datasets while maintaining privacy of individual transactions within said datasets through randomization, said method comprising:

randomizing an original dataset to create a randomized dataset, said randomizing comprising:

randomly dropping true items from each transaction in said original dataset;

randomly inserting false items into each transaction in said original dataset; and

estimating the nonrandomized support of an association rule in the said original dataset given its based on randomized support of said association rule in the said randomized dataset so as to recover said association rule, wherein, due to said randomizing, privacy breaches of said individual transactions are controlled.

2.   (Currently Amended) The method in claim 1, wherein said randomization randomizing comprises per transaction randomizing, such that randomizing operators are applied to each transaction independently.

3.   (Currently Amended) The method in claim 1, wherein said randomization randomizing is item-invariant such that a reordering of said transactions does not affect outcome probabilities.

4.   (Original) The method in claim 1, wherein said dropping of said true items and said inserting of said false items are carried out to an extent such that the chance of

10/624,069   5

finding a false itemset in a randomized transaction relative to the chance of finding a true itemset in said randomized transaction is above a predetermined threshold.

5. (Original) The method in claim 4, wherein said predetermined threshold provides that the chance of finding a false itemset in said randomized transaction is approximately equal to the chance of finding a true itemset in said randomized transaction.

6. (Currently Amended) The method in claim 1, wherein said dropping of said true items and said inserting of said false items are performed independently on said transactions prior to the said transactions being collected in the a database.

7. (Currently Amended) A computer-implemented method of mining association rules from databases while maintaining privacy of individual transactions within said databases through randomization, said method comprising:

randomizing an original dataset to create a randomized dataset, said randomizing comprising:

randomly dropping true items from each transaction in said original dataset;

randomly inserting false items into each transaction in said original dataset;

collecting said randomized dataset in a database; and

mining said database for to recover an association rules after said dropping and inserting processes by estimating the nonrandomized support of [[an]] said association rule in the said original dataset given its based on randomized support of said association rule in the said randomized dataset, wherein, due to said randomizing, privacy breaches of said individual transactions are controlled during said mining.

10/624,069   6

8. (Currently Amended) The method in claim 7, wherein said ~~randomization~~ randomizing comprises per transaction randomizing, such that randomizing operators are applied to each transaction independently.

9. (Currently Amended) The method in claim 7, wherein said ~~randomization~~ randomizing is item-invariant such that a reordering of said transactions does not affect outcome probabilities.

10. (Original) The method in claim 7, wherein said dropping of said true items and said inserting of said false items are carried out to an extent such that the chance of finding a false itemset in a randomized transaction relative to the chance of finding a true itemset in said randomized transaction is above a predetermined threshold.

11. (Original) The method in claim 10, wherein said predetermined threshold provides that the chance of finding a false itemset in said randomized transaction is approximately equal to the chance of finding a true itemset in said randomized transaction.

12. (Currently Amended) The method in claim 7, wherein said dropping and said inserting are performed independently on said transactions prior to ~~the~~ said transactions being collected in ~~the~~ said database.

13. (Currently Amended) A computer-implemented method of mining association rules from datasets while maintaining privacy of individual transactions within said datasets through randomization, said method comprising:
    creating randomized transactions from an original dataset by:
        randomly dropping true items from each transaction in said original dataset, and

10/624,069   7

randomly inserting false items into each said transaction in said original dataset;

creating a randomized dataset by collecting said randomized transactions;

collecting said randomized dataset in a database; and

mining said database for to recover an association rules after said dropping and inserting processes by estimating nonrandomized support of [[an]] said association rule in the said original dataset based on the randomized support for said association rule in said randomized dataset, wherein, due to said creating of said randomized transactions, privacy breaches of said individual transactions are controlled during said mining.

14.   (Original) The method in claim 13, wherein said process of creating randomized transactions comprises per transaction randomizing, such that randomizing operators are applied to each transaction independently.

15.   (Original) The method in claim 13, wherein said process of creating randomized transactions is item-invariant such that a reordering of said transactions does not affect outcome probabilities.

16.   (Original) The method in claim 13, wherein said dropping of said true items and said inserting of said false items are carried out to an extent such that the chance of finding a false itemset in a randomized transaction relative to the chance of finding a true itemset in said randomized transaction is above a predetermined threshold.

17.   (Original) The method in claim 16, wherein said predetermined threshold provides that the chance of finding a false itemset in said randomized transaction is approximately equal to the chance of finding a true itemset in said randomized transaction.

10/624,069   8

18. (Currently Amended) The method in claim 13, wherein said process of creating randomized transactions is performed independently on said transactions prior to the transactions being collected in said ~~randomized~~ database.

19. (Currently Amended) A ~~program storage device~~ computer program product on a computer-readable medium ~~by computer,~~ and tangibly embodying a program of instructions executable by ~~the~~ a computer to perform a method of mining association rules from databases while maintaining privacy of individual transactions within said databases through randomization, said method comprising:

randomizing an original dataset to create a randomized dataset, said randomizing comprising:

randomly dropping true items from each transaction in said original dataset;

randomly inserting false items into each transaction in said original dataset;

collecting said randomized dataset in a database; and

mining said database ~~for~~ to recover an association rules after said dropping and inserting processes by estimating ~~the~~ nonrandomized support of [[an]] said association rule in ~~the~~ said original dataset ~~given its~~ based on randomized support of said association rule in ~~the~~ said randomized dataset, wherein, due to said randomizing, privacy breaches of said individual transactions are controlled during said mining.

20. (Currently Amended) The ~~program storage device in~~ computer program product of claim 19, wherein said ~~randomization~~ randomizing comprises per transaction randomizing, such that randomizing operators are applied to each transaction independently.

10/624,069   9

21. (Currently Amended) The ~~program storage device in~~ computer program product of claim 19, wherein said ~~randomization~~ randomizing is item-invariant such that a reordering of said transactions does not affect outcome probabilities.

22. (Currently Amended) The ~~program storage device in~~ computer program product of claim 19, wherein said dropping of said true items and said inserting of said false items are carried out to an extent such that the chance of finding a false itemset in a randomized transaction relative to the chance of finding a true itemset in said randomized transaction is above a predetermined threshold.

23. (Currently Amended) The ~~program storage device in~~ computer program product of claim 22, wherein said predetermined threshold provides that the chance of finding a false itemset in said randomized transaction is approximately equal to the chance of finding a true itemset in said randomized transaction.

24. (Currently Amended) The ~~program storage device in~~ computer program product of claim 19, wherein said dropping and said inserting are performed independently on said transactions prior to ~~the~~ said transactions being collected in ~~the~~ said database.

10/624,069   10